

Schilder's encephalitis there is often complete loss of vision and hearing. In disseminated sclerosis vision may be impaired, but as a rule only one eye is affected, and usually only temporarily. Complete deafness is never met with in disseminated sclerosis except as the result of an independent ear affection.

Pathologically the two diseases resemble each other closely, except that in disseminated sclerosis the plaques are sharply defined. Still more important is the fact that in Schilder's encephalitis the lesion is only periaxial in the very early stages, and soon destroys the axis-cylinders, with consequent Wallerian degeneration of the peripheral part of the fibres.

G. W. T. H. FLEMING.

*An Attempt to Identify the Central Cells Mediating Kinæsthetic Sense in the Extrinsic Eye Muscles. (Arch. of Neur. and Psychiat., March, 1927.) McLean, A. J.*

The cells of the third, fourth and sixth nuclei of the dog can be separated into two distinct sizes, hitherto unrecognized, both having the "motor" type of tigroid substance diffusely intermingled throughout the nuclei. In the dog their sizes correlate roughly with the sizes of fibres in the peripheral trunks, more especially in the case of the third cranial pair. The author suggests that the smaller cells described in the central nuclei of the dog mediate the kinæsthetic sense of the extra-ocular muscles.

G. W. T. H. FLEMING.

*The Nature of the Cerebro-spinal Fluid. (Arch. of Neur. and Psychiat., March, 1927.) Fremont-Smith, F.*

The author considers that there is no proper evidence of secretion. The variations in pressure of the fluid can be accounted for by the changes that occur in capillary pressure in the choroid plexus or in the osmotic pressure of the plasma. The chemical composition of the fluid as far as all the major constituents are concerned is exactly what would be expected from a simple membrane equilibrium, and can be reproduced outside the body by simply dialyzing plasma through a suitable collodion membrane. The laws which characterize this equilibrium hold true in many parts of the body, and determine the composition of pleural, ascitic and synovial effusions, also the chloride exchange that occurs between red cells and plasma.

G. W. T. H. FLEMING.

*The Circulation of the Cerebro-spinal Fluid from the Standpoint of Intraventricular and Intraspinial Therapy. (Journ. of Nerv. and Ment. Dis., December, 1926.) Rigquier, C. C., and Ferrard, R.*

These authors give the following conclusions: The existence of a descending current from the ventricular cavities towards the sub-arachnoid spaces seems to be established by the experiments of Quincke, Lafora, Ahrens, Prados Such, Stern, Gautier and others. The fluid introduced into the ventricular cavities passes into the subarachnoid spaces by way of the foramina of Luschka and

Magendie, or by way of the functioning membrane described by L. Weed. Besides this pathway, according to the studies of Monakow, a drug introduced into the cerebral cavities may pass through the cerebral parenchyma, directly reaching the nervous elements by way of the perivascular and perineuronal spaces. The ventricular fluid reaches the central spinal canal when free of obstructions by direct communication. A drug introduced into the spinal subarachnoid spaces may reach the cerebral parenchyma. In these cases the displacement of the fluid is due to the ascending current mentioned in the experiments of Quincke, Ahrens, Dandy and Blackfan, Solomon, Thompson and Pfeiffer, Marinesco and Draganesco.

A drug introduced into the subarachnoid spaces may reach the central nervous parenchyma, passing from the exterior toward the interior, as shown by Marinesco, Draganesco, Lafora, Prados Such, Dixon and Halliburton, Syursberg, Fleischmann and Weed. Such a penetration is greater if the medicament is introduced under a high pressure or after the use of intravenous injections of hypertonic salt solutions. Furthermore, Kramer claims the existence of an ascending current in the central spinal canal, so that the fluid reaching this canal from the subarachnoid spaces may transport upward any drug present in the fluid.

The fluid may reach the arterial circulation indirectly by way of the perineural lymphatics, or by venous absorption as emphasized by Weed.

From the theoretical point of view, intraventricular and intraspinal therapy is justified by the experiments of many authors who have established the possibilities of a dye reaching the nervous parenchyma. From a practical point of view intraspinal therapy allows a medicament to reach the nervous tissue directly and immediately.

G. W. T. H. FLEMING.

*General Paralysis: The Histopathology of the Basal Ganglia, Corpus Callosum and Dentate Nucleus in Four Cases.* (*Arch. of Neur. and Psychiat.*, February, 1927.) Houlton, T. L.

In four cases the author examined the basal ganglia and dentate nucleus and found very constant pathological changes, consisting of perivascular infiltration with small-cells, plasma-cells and large lymphocytes. Satellitosis was often present with neuronophagia. Rod-cells were common. Many nerve-cells contained no nucleus and the cytoplasm stained faintly. The author thinks that the speech disturbance, the expressionless facies and the fine tremors about the eyes and mouth may be due to the changes in the basal ganglia.

G. W. T. H. FLEMING.

*Malignant Hypernephroma Coincident with Arterio-sclerosis in Children.* (*Journ. of Nerv. and Ment. Dis.*, January, 1927.) Dieterle, R. A.

A female child, æt. 4½, had convulsions alternating with a semi-stuporous condition. The blood-pressure was 145-160 mm. Hg.